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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/893,100

06/26/2001

Peter K. Chow

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4424

7590

02/23/2005

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EXAMINER

WAHBA, ANDREW W

ART UNIT

PAPER NUMBER

2661

DATE MAILED: 02/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/893,100

Applicant(s)

CHOW ET AL.

Examiner

Andrew W Wahba

Art Unit

2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 June 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Drawings***

1. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because Figure 3 is informal. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 2-5, 9-12 and 16 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 2-5, 9-12 and 16 recite the limitation "minimal number of interface signals" in line 1. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 2, 3, 4, 8, 9, 10, 11 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Mills (US Patent 5,991,303).

With regard to claims 1 and 8, Mills discloses a physical device 200 (HPNA control chip) that may be implemented on a chip (column 6, lines 13-14). The physical device 200 includes line driver / receiver circuit 250 (providing data path logic) (column 6, lines 16-21). In combination, auto-negotiation circuit 260 and management interface circuit 270 read on the applicant's consolidating the transmit data path logic to include transmit state machine (column 6, lines 16-21 and column 7, lines 1-5). Physical device interface 200 also includes a first collision domain 210 a second collision domain 212 (two collision recovery means). Auto-negotiation circuit 260 provides seamless switching (minimal number of generic interface signals) between 100M and 10M domains (two data rate standards) without external switching circuitry (column 6, lines 60-65 and column 7, lines 61-65).

With regard to claims 2 and 9, auto-negotiation circuit 260 provides seamless switching (GO-signal) between 100M and 10M domains without external switching circuitry (column 7, lines 61-65).

With regard to claims 3 and 10, auto-negotiation circuit 260 provides seamless switching (new transmit signal) between 100M and 10M domains without external switching circuitry (column 7, lines 61-65).

With regard to claims 4 and 11, auto-negotiation circuit 260 provides seamless switching (done signal) between 100M and 10M domains without external switching circuitry (column 7, lines 61-65).

With regard to claim 15, Mills discloses a physical device 200 (HPNA control chip) that that may be implemented on a chip (column 6, lines 13-14). The physical device 200 includes line driver / receiver circuit 250 (physical layer) (column 6, lines 16-21). Disclosed elements between front end multiplexer 240 and back end multiplexer 218 read on applicant's media access control (column 6, lines 16-21 and column 7, lines 1-5). Also, auto-negotiation circuit 260 and management interface circuit 270, in combination, read on the applicant's consolidating the transmit data path logic to include transmit state machine (column 6, lines 16-21 and column 7, lines 1-5). Physical device interface 200 includes MII circuit 214 (MII) for communicating with a first collision domain 210 and MII circuit 216 (MII) for communicating with a second collision domain 212 (two collision recovery means). Auto-negotiation circuit 260 provides seamless switching (minimal number of generic interface signals) between 100M and 10M (two data rate standards) domains without external switching circuitry (column 6, lines 60-65 and column 7, lines 61-65).

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 5, 6, 7, 12, 13, 14, 16, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mills (US Patent 5,991,303) in view of Lu et al hereinafter "Lu" (US Patent 6,839,345).

With regard to claims 5 and 12, Mills does not expressly disclose a transmit priority indicator from the transmit data. Lu discloses a deference algorithm module that implements distributed fair priority queuing DFPQ (priority) on HPNA 2.0 (column 4, lines 52-56).

A person of ordinary skill in the art to which the invention pertains would have been motivated to employ Lu in Mills to add DFPQ so as to provide a QOS guarantee at the physical layer (Lu, column 2, lines 17-19). At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine Mills and Lu (collectively "Mills-Lu") so as to obtain the invention as specified in claims 5 and 12.

With regard to claim 16, Mills discloses an auto-negotiation circuit 260 that provides seamless switching (GO-signal / new transmit signal / done signal) between 100M and 10M domains without external switching circuitry (column 7, lines 61-65).

Mills does not expressly disclose a transmit priority indicator from the transmit data. Lu discloses a deference algorithm module that implements distributed fair priority queuing DFPQ (priority) on HPNA 2.0 (column 4, lines 52-56).

A person of ordinary skill in the art to which the invention pertains to would have been motivated to employ Lu in Mills to add DFPQ so as to provide a QOS guarantee at

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the physical layer (Lu, column 2, lines 17-19). At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine Mills and Lu (collectively "Mills-Lu") so as to obtain the invention as specified in claim 16.

With regard to claims 6, 13 and 17, Mills does not expressly disclose that the at least two separate collision recovery means further comprises a BEB collision recovery means. Lu discloses a deference algorithm module that implements BEB (BEB) on HPNA 1.0 (column 4, lines 52-56).

A person of ordinary skill in the art to which the invention pertains to would have been motivated to employ Lu in Mills to employ binary exponential backoff algorithm to defer its transmission when media is busy (Lu, column 2, lines 12-17). At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine Mills and Lu (collectively "Mills-Lu") so as to obtain the invention as specified in claims 6, 13, and 17.


With regard to claims 7, 14 and 18, Lu discloses a deference algorithm module that implements DFPQ (DFPQ) on HPNA 2.0 (column 4, lines 52-56).

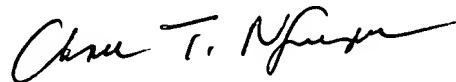
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew W Wahba whose telephone number is (571) 272-3081. The examiner can normally be reached on M-F 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T Nguyen can be reached on (571) 272-3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Respectfully Submitted,

Andrew Wahba   
Patent Examiner  
February 16, 2005



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SUPERVISORY PATENT EXAMINER  
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